

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q90912

Roberto AVALLONE, et al.

Appln. No.: 10/500,036

Group Art Unit: 3663

Confirmation No.: 2244

Examiner: Deandra M. Hughes

Filed: February 1, 2005

For: OPTICAL TRANSMISSION SYSTEM WITH RAMAN AMPLIFIERS COMPRISING A SUPERVISORY SYSTEM

**RESPONSE TO RESTRICTION AND ELECTION OF SPECIES REQUIREMENTS**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the restriction and election of species requirements stated in the Office action mailed July 21, 2006, applicants elect Group I and Species g (the magneto-optical variable attenuator) for examination at this time. The examiner has identified claims 1-4 and 10-22 as generic. Claims specific to Species e are claims 9 and 24. Thus, all of claims 1-4, 9-22 and 24 are elected for examination, with additional claims 5-8 and 23 to be examined upon allowance of a generic claim. Applicants reserve the right to file one or more divisional applications directed to the subject matter of non-elected claims 5-8, 23 and 25-36.

This election in response to the restriction requirement is made with traverse.

The basis for a unity of invention objection in a PCT national stage application is that the claims must share a special technical feature that defines a contribution over the prior art. In the present case, claims 1 and 25 both recite (1) a first pump source which sends a pump radiation in a first direction to cause Raman amplification of a first optical signal on a link, (2) a first photodetector for converting a portion of the first optical signal into an electrical signal, and (3) a first supervisory unit adapted for amplifying the electrical signal, for extracting a first supervisory signal from the electrical signal and causing the extracted amplified first supervisory

signal to be superimposed on the first optical signal. Claim 36 recites these same features in method form, i.e., (1) sending a pump radiation in a first direction to cause Raman amplification of a first optical signal on a link, (2) converting a portion of the first optical signal into an electrical signal, and (3) amplifying the electrical signal, extracting a first supervisory signal from the electrical signal, and superimposing the extracted amplified first supervisory signal on the first optical signal. Thus, all of the three independent claims recite this same combination of features which define a contribution over the prior art, and there clearly exists unity of invention under PCT Rules 13.1 and 13.2.

The examiner has simply pointed out that the three independent claims are directed to different things, i.e., an optical transmission system, an optical repeater and a method of supervising, but the criteria for non-unity of invention is not what is different about the claims but instead what is the same. All of these claims inarguably share the combination of features described above which defines a contribution over the prior art. Accordingly, unity of invention exists and all claims should be examined together.

Examination on the merits with respect to all claims is respectfully requested.

An extension of time is requested, and the statutory fee is being paid through the Electronic Filing System.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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